REMARKS

Claims 47-80 are pending in the present application. Claims 47-80 have been rejected as being unpatentable over Meiksin et al. 6,370,396 (Meiksin) in view of Nalbant 6,763,114 (Nalbant).

Dependent claims 54 and 60 have been amended to correct an incorrect parent claim reference. The amendments to claims 54 and 60 were not made in response to any rejections.

All of the pending independent claims recite either "an RF power amplifier suitable for transmitting signals in a cellular telephone system," "amplifying RF signals in a wireless device," and/or "amplifying signals for a wireless RF communication system." In addition, many of the claims recite the use of a complementary metal oxide semiconductor (CMOS).

Meiksin relates to a facility-wide communication system that is designed to be used in energy-transmission-limited environments, such as an underground mine. As Meiksin explains, in environments like underground mines, the transfer of electromagnetic energy is blocked or limited, and that conventional wireless communication over long distances in these environments is not possible. To address this problem, Meiksin teaches the use of off-the-shelf hand-held radios, in combination with strategically locating RF transceivers throughout the site (e.g., a mine). The radios communicate with the closest transceiver, which is networked (via CAT 5, etc.) with other transceivers. The network of transceivers effectively relays communications from radio to radio. (col. 1, lines 15-48).

With just the transceivers and radios, the system of Meiksin still can not provide communication between the surface and the mine interior. Meiksin therefore teaches a through-the earth (TTE) communication system to enable two-way communication between the surface and the mine interior. (Col. 4, lines 28-35). The TTE communication is accomplished by

magnetic coupling of energies at low a frequency in the range of 3 kHz to 8 kHz, between loop antennas coupled to TTE transceivers. (Col. 4, lines 35-39).

The Office Action states that "Meiksin discloses an RF structure and method where the bridge power amplifier is able to supply high current into the antenna without the need for a high voltage." However, the bridge power amplifier described in Meiksin (amplifier 1505 in FIG. 15) is a low frequency amplifier (3 kHz to 8 kHz), not an RF power amplifier suitable for transmitting signals in a cellular telephone system. (See, Col. 15, lines 17-20; Col. 14, lines 57-58; Col. 4, lines 35-39). Note that the bridge amplifier 1505 is only used by the TTE system for transmitting low frequency signals through the ground between the surface and the interior of the mine. This is a very specialized use, and there is no teaching or suggestion in Meiksin that the bridge amplifier 1505 would be suitable for applications with frequencies suitable for transmitting signals in a cellular telephone system.

In addition to the failure of Meiksin to teach or suggest that the bridge amplifier 1505 would be suitable for high frequency applications, Meiksin is silent on the structure of the bridge amplifier structure. The Office Action therefore relies on Nalbant to show the structure of a bridge power amplifier.

Nalbant discloses an audio amplifier for powering speakers. Also note that there is no teaching or suggestion in Nalbant that a bridge power amplifier would be suitable for a high frequency application, or for a wireless application. The Office Action points out that the circuit may be used in "applications requiring low power consumption and needing high power output." In fact, looking at that passage in context, Nalbant teaches away from such uses:

> "Thus, the circuit also may be used in other high fidelity applications requiring low power consumption and needing high power output such as battery powered compact disc players, digital audio tape, and DVD players. However, it is

anticipated that the circuit is also useful for nonportable applications including desktop computers." (Col. 9, lines 15-20).

Nalbant appears to teach that the circuit is suitable for high fidelity (i.e., audio) applications and nonportable applications such as computers.

Given the teaching of both Meiksin and Nalbant, there appears to be no suggestion to combine their teachings. In addition, even if their teachings were combined, the resulting combination would result in an audio amplifier or low frequency amplifier suitable for TTE applications. Applicants also assert that Nalbant is nonanalogous prior art to applications such as RF power amplifiers for wireless devices. Applicants assert that reference to an RF power amplifier for wireless devices is not in the same field as audio amplifiers. These two fields involve different design issues (e.g., different noise issues, component capabilities, etc.). Applicants believe that a designer of an RF power amplifier for use in a wireless system would look to audio amplifiers for guidance. [1]

Finally, with respect to the recitation of a complementary metal oxide semiconductor (CMOS) in some of the pending claims, Applicants assert that the combination of cited references would not make the invention obvious. It is not a trivial matter to implement an RF power amplifier using CMOS technologies, as is indicated in the Specification. Applicants therefore believe that Nalbant (an audio amplifier) and Meiksin (a low frequency bridge amplifier) do not make obvious an RF amplifier using CMOS technologies. In addition, Nalbant

[1] See, for example, *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993) (Patent claims were directed to single in-line memory modules (SIMMs) for installation on a printed circuit motherboard for use in personal computers. Reference to a SIMM for an industrial controller was not necessarily in the same field of endeavor as the claimed subject matter merely because it related to memories. Reference was found to be in a different field of endeavor because it involved memory circuits in which modules of varying sizes may be added or replaced, whereas the claimed invention involved compact modular memories. Furthermore, since memory modules of the claims at issue were intended for personal computers and used dynamic random-access-memories, whereas reference SIMM was developed for use in large industrial machine controllers and only taught the use of static random- access-memories or read-only-memories, the finding that the reference was nonanalogous was supported by substantial evidence.)

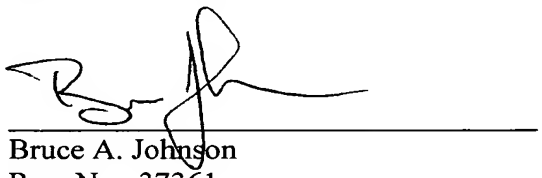
only describes the circuit of FIG. 5 (which does not include the bridge amplifier) as being implemented using BICMOS technology. Nalbant describes the bridge amplifier as "external" to the circuit of FIG. 5, so the exact implementation of the bridge amplifier seems ambiguous, at best.

For at least these reasons, applicant asserts that all of the claims are allowable over the prior art.

Conclusion

It is respectfully submitted that all claims are patentable over the prior art. It is further more respectfully submitted that all other matters have been addressed and remedied and that the application is in form for allowance. Should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Bruce A. Johnson, Applicants' Attorney at 512-301-9900 so that such issues may be resolved as expeditiously as possible. Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 to deposit account number 50-3864 (Johnson & Associates).

Respectfully Submitted,



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Date

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